

## IVS Components

(within types, alphabetical by component name)

### Network Stations

| Component Name   | Sponsoring Organization   | Country      |
|--|---|--------------|
| Algonquin Radio Observatory                            | Geodetic Survey Division, Natural Resources Canada                | Canada       |
| Fortaleza, Radio Observatorio Espacialdo Nortes (ROEN) | Centro de Rádio Astronomia e Aplicações Espaciais                 | Brazil       |
| Gilmore Creek Geophysical Observatory                  | National Earth Orientation Service                                | USA          |
| Goddard Geophysical and Astronomical Observatory       | NASA Goddard Space Flight Center                                  | USA          |
| National Radio Astronomy Observatory, Green Bank       | U. S. Naval Observatory   | USA          |
| Hartebeesthoek Radio Astronomy Observatory             | Hartebeesthoek Radio Astronomy Observatory                        | South Africa |
| Key Stone Project Koganei 11m antenna                  | Communications Research Laboratory                                | Japan        |
| Key Stone Project Kashima 11m antenna                  | Communications Research Laboratory                                | Japan        |
| Key Stone Project Miura 11m antenna                    | Communications Research Laboratory                                | Japan        |
| Key Stone Project Tateyama 11m antenna                 | Communications Research Laboratory                                | Japan        |
| Kokee Park Geophysical Observatory                     | National Earth Orientation Service                                | USA          |
| Matera   | Agenzia Spaziale Italiana   | Italy        |
| Medicina (Italy)                                       | Istituto di Radioastronomia CNR                                   | Italy        |
| Mizusawa   | National Astronomical Observatory of Japan                        | Japan        |
| Noto (Sicily)  | Istituto di Radioastronomia CNR                                   | Italy        |
| Ny Ålesund Geodetic Observatory                        | Norwegian Mapping Authority                                       | Norway       |
| ERS/VLBI Station O'Higgins                             | Bundesamt für Kartographie und Geodäsie                           | Germany      |
| Onsala Space Observatory                               | Chalmers University of Technology                                 | Sweden       |
| Seshan   | Shanghai Observatory, Chinese Academy of Sciences                 | China        |
| Simeiz   | Laboratory of Radioastronomy of Crimean Astrophysical Observatory | Ukraine      |
| Svetloe Radio Astronomy Observatory                    | Institute of Applied Astronomy                                    | Russia       |
| JARE Syowa 11m antenna                                 | National Institute of Polar Research                              | Japan        |

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|---|--|---------|
| Transportable Integrated Geodetic Observatory (TIGO)          | Bundesamt für Kartographie und Geodäsie  | Germany |
| Tsukuba VLBI Station  | Geographical Survey Institute  | Japan   |
| Nanshan VLBI Station of Urumqi Astronomical Observatory (UAO) | Shanghai Observatory, Chinese Academy of Sciences  | China   |
| Westford Antenna, Haystack Observatory                        | NASA Goddard Space Flight Center   | USA     |
| Fundamentalstation Wettzell                                   | Bundesamt für Kartographie und Geodäsie and Forschungseinrichtung Satellitengeodäsie der Technischen Universität München | Germany |
| Observatorio Astronómico Nacional - Yebes                     | Instituto Geográfico Nacional  | Spain   |
| Yellowknife Geophysical Observatory                           | Geodetic Survey Division, Natural Resources Canada   | Canada  |

### Operation Centers

| Component Name          | Sponsoring Organization                    | Country |
|-------------------------|--|---------|
| Geodetic Institute Bonn | Geodätisches Institut der Universität Bonn | Germany |
| CORE Operation Center   | NASA Goddard Space Flight Center           | USA     |
| NEOS Operation Center   | National Earth Orientation Service         | USA     |

### Correlators

| Component Name  | Sponsoring Organization  | Country     |
|---|--|-------------|
| Bonn Astro/Geo Correlator at the Max-Planck-Institute for Radio Astronomy | Bundesamt für Kartographie und Geodäsie and Geodätisches Institut der Universität Bonn | Germany     |
| EVN Data Processor at JIVE  | Joint Institute for VLBI in Europe   | Netherlands |
| Key Stone Project   | Communications Research Laboratory   | Japan       |
| MIT Haystack Observatory Correlator                                       | NASA Goddard Space Flight Center   | USA         |
| Institute of Applied Astronomy Correlator                                 | Institute of Applied Astronomy   | Russia      |
| Tsukuba VLBI Center   | Geographical Survey Institute  | Japan       |
| Washington Correlator   | National Earth Orientation Service   | USA         |

**Data Centers**

| <b>Component Name</b>                            | <b>Sponsoring Organization</b>          | <b>Country</b> |
|--|---|----------------|
| BKG, Leipzig                                     | Bundesamt für Kartographie und Geodäsie | Germany        |
| Communications Research Laboratory               | Communications Research Laboratory      | Japan          |
| Crustal Dynamics Data Information System (CDDIS) | NASA Goddard Space Flight Center        | USA            |
| GeoDAF   | Agenzia Spaziale Italiana               | Italy          |
| Italy CNR  | Istituto di Radioastronomia CNR         | Italy          |
| Observatoire de Paris                            | Observatoire de Paris                   | France         |

**Analysis Centers**

| <b>Component Name</b>                               | <b>Sponsoring Organization</b>   | <b>Country</b> |
|---|--|----------------|
| Astronomical Institute of St.-Petersburg University | Astronomical Institute of St.-Petersburg University                                    | Russia         |
| Bordeaux Observatory                                | Observatoire de Bordeaux   | France         |
| Centro di Geodesia Spaziale (CGS)                   | Agenzia Spaziale Italiana  | Italy          |
| Communications Research Laboratory                  | Communications Research Laboratory   | Japan          |
| DGFI  | Deutsches Geodätisches Forschungsinstitut  | Germany        |
| Forsvarets forskningsinstitutt (FFI)                | Norwegian Defence Research Establishment   | Norway         |
| GIUB-BKG Analysis Center                            | Geodätisches Institut der Universität Bonn and Bundesamt für Kartographie und Geodäsie | Germany        |
| Goddard Space Flight Flight Center                  | NASA Goddard Space Center  | USA            |
| Haystack Observatory                                | NASA Goddard Space Flight Center   | USA            |
| Institute of Applied Astronomy                      | Institute of Applied Astronomy   | Russia         |
| Italy CNR   | Istituto di Radioastronomia CNR  | Italy          |
| Jet Propulsion Laboratory                           | Jet Propulsion Laboratory  | USA            |
| Main Astronomical Observatory                       | National Academy of Sciences, Kiev   | Ukraine        |
| NAOJ  | National Astronomical Observatory of Japan   | Japan          |
| Observatoire de Paris                               | Observatoire de Paris  | France         |
| Onsala Space Observatory                            | Chalmers University of Technology  | Sweden         |
| Shanghai Observatory                                | Shanghai Observatory, Chinese Academy of Sciences                                      | China          |
| U. S. Naval Observatory                             | U. S. Naval Observatory  | USA            |

### Technology Development Centers

| Component Name                              | Sponsoring Organization   | Country     |
|---|---|-------------|
| Canadian VLBI Technology Development Center | Space Geodynamics Laboratory, Geodetic Survey Division, Dominion Radio Astrophysical Observatory, Canadian Space Agency | Canada      |
| Communications Research Laboratory          | Communications Research Laboratory  | Japan       |
| Forsvarets forskningsinstitutt (FFI)        | Norwegian Defence Research Establishment  | Norway      |
| Goddard Space Flight Center                 | NASA Goddard Space Flight Center  | USA         |
| MIT Haystack Observatory                    | National Earth Orientation Service  | USA         |
| Institute of Applied Astronomy              | Institute of Applied Astronomy  | Russia      |
| Institut d'Estudis Espacials de Catalunya   | Institut d'Estudis Espacials de Catalunya   | Spain       |
| Joint Institute for VLBI in Europe (JIVE)   | Joint Institute for VLBI in Europe  | Netherlands |
| Onsala Space Observatory                    | Chalmers University of Technology   | Sweden      |